



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/589,413

08/15/2006

John Y. Lee

OR-7244 US

7149

7982 7590 05/23/2008

ALBEMARLE CORPORATION  
PATENT DEPARTMENT  
451 FLORIDA STREET  
BATON ROUGE, LA 70801

EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

05/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,413	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> CHUKWUMA O. NWAONICHA	<b>Art Unit</b> 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9,11-14,16,18,21,24,26,29,30,34,37,40,47,51,54-56,58 and 59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/15/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 1-3,5-7,9,11-14,16,18,21,24,26,29,30,34,37,40,47,51,54-56,58 and 59.

### DETAILED ACTION

Claims 1-3, 5-7, 9, 11-14, 16, 18, 21, 24, 26, 29, 30, 34, 37, 40, 47, 51, 54-56, 58 and 59 are pending in the application.

#### *Priority*

Applicants' claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim** 1-3, 5-7, 9, 11-14, 16, 18, 21, 24, 26, 29, 30, 34, 37, 40, 47, 51, 54-56, 58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (1), {US 6,388,138}, Lee et al., {US 6,162,950}, Lee (2), {US 6,169,208} or Rosen et al., {US 5,919,983}.

Applicants' claim a process for producing at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate; wherein all the other variables are as defined in the claims.

**Determination of the scope and content of the prior art (M.P.E.P. §2141.01)**

Lee (1) teaches a method for producing in at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate from at least one tetrakis(<sup>F</sup>aryl)borate salt in an organic solvent in the presence of an amine and a protic acid. See column 5, lines 46-54, and examples 1, 2 and 9.

On the other hand, Lee et al. teach a method for producing at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate from at least one tetrakis(<sup>F</sup>aryl)borate salt in an organic solvent in the presence of an amine and a protic acid. See column 5, paragraphs 4, 5, and examples 5 and 6.

Lee (2) teaches a method for producing at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate from at least one tetrakis(<sup>F</sup>aryl)borate salt in an organic solvent in the presence of an amine and a protic acid. See column 5, lines 40-50, and examples 1, 2 and 9.

Rosen et al. teach a method for producing at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate from at least one tetrakis(<sup>F</sup>aryl)borate salt in an organic solvent in the presence of an amine and a protic acid. See examples 1-4.

**Ascertainment of the difference between the prior art and the claims (M.P.E.P. §2141.02)**

Lee (1) and Lee et al., Lee (2) or Rosen et al. process for producing at least one protic ammonium tetrakis(<sup>F</sup>aryl)borate differs from the instantly claimed process in that Applicants' claim process is narrower in scope than the teaching of the prior arts references. Specifically, Applicants' claim a process that employs at least one alkali metal tetrakis(<sup>F</sup>aryl)borate, at least one magnesium tetrakis(<sup>F</sup>aryl)borate, at least one halomagnesium tetrakis(<sup>F</sup>aryl)borate, or a mixture of two or more of the foregoing while the prior arts teach a process that employed at least one tetrakis(<sup>F</sup>aryl)borate salt.

**Finding of prima facie obviousness--rational and motivation (M.P.E.P.. §2142-2143)**

The instant claimed process for producing a protic ammonium tetrakis(<sup>F</sup>aryl)borate is obvious over the prior art references of Lee (1) and Lee et al., Lee (2) or Rosen et al. because the references teach a process of employing at least one alkali metal tetrakis(<sup>F</sup>aryl)borate, at least one magnesium tetrakis(<sup>F</sup>aryl)borate to make a protic ammonium tetrakis(<sup>F</sup>aryl)borate compound.

One of ordinary skill in the art would have a reasonable expectation of success in practicing the instant invention by following the process steps and conditions taught by Lee (1) and Lee et al., Lee (2) or Rosen et al. to arrive at the instantly claimed process for making protic ammonium tetrakis(<sup>F</sup>aryl)borate. Said person would have been motivated to practice the teaching of the reference cited because it demonstrate that protic ammonium tetrakis(<sup>F</sup>aryl)borate which, can be made in an organic solvent have industrial applicatios. Thus, the variation of the process conditions in the production of protic ammonium tetrakis(<sup>F</sup>aryl)borate is not a patentable distinction because Lee (1)

and Lee et al., Lee (2) or Rosen et al. teach the elements of the claimed invention with sufficient guidance, particularity, and with a reasonable expectation of success, that the invention would be *prima facie* obvious to one of ordinary skill in the art.

Additionally, simply reversing the order of steps in a multi-step process is not a patentable modification absent unexpected or unobvious results. Ex parte Rubin, 128 U.S.P.Q. 440 (P.O.B.A 1959).

Moreover, all the claimed elements (alkali metal tetrakis(<sup>F</sup>aryl)borate, magnesium tetrakis(<sup>F</sup>aryl)borate, halomagnesium tetrakis(<sup>F</sup>aryl)borate, an organic solvent, amine and a protic acid for making protic ammonium tetrakis(<sup>F</sup>aryl)borate) were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne (Bonnie) Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chukwuma O. Nwaonicha/  
Examiner, Art Unit 1621

(for)

/Sikarl A. Witherspoon/  
Primary Examiner, Art Unit 1621

---

Yvonne (Bonnie) Eyler  
Supervisory Patent Examiner,  
Technology Center 1600